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Gerald Hobisch

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EXAMINER

DOLLINGER, MICHAEL M

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/565,014  
Filing Date: January 18, 2006  
Appellant(s): HOBISCH ET AL.

\_\_\_\_\_  
Matthew W. HJammersley  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 02/22/2011 appealing from the Office action mailed 08/26/2010.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 1 and 6 are rejected.

Claims 1 and 6 are on appeal.

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

EP 0 272 524	Staritzbichler et al	07-1987
6,114,434	Tuemmler et al	09-2000

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staritzbichler et al (EP 0 272 524) in view of Tuemmler et al (US 6,114,434).

Staritzbichler discloses water dilutable lacquer bonding agents based on the partial condensation products of a water soluble polycarboxylic acid binder and a water insoluble polyhydroxyl component [paragraph 4] and the binder is made water dilutable by partial neutralization of carboxyl groups [paragraph 5]. The binder comprises (A) 10 to 90 weight percent of the polycarboxylic acid binder [paragraph 6] with an acid value of 50 to 280 mg KOH/g [paragraph 8] and (B) 10 to 90 weight percent of the polyhydroxyl binder [paragraph 6] with hydroxyl number between 50 and 300 mg KOH/g [paragraph 10]. The polyhydroxyl binder is prepared from the polycondensation of polyols, polycarboxylic acids or their anhydrides, and monocarboxylic acids with 5 to 20 carbon atoms [paragraph 11] which read on the claims aliphatic monobasic fatty acids.

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The partial condensation product of A and B has an acid value up to 20 units lower than the polycarboxylic binder A [paragraph 19] which corresponds to an acid value of 30 to 260 mg KOH/g. The inventive example includes a pigment past from 127.3 parts by weight of 33% solids content binder AB, 27 parts by weight deionized water, 60 parts by weight of titanium dioxide (a white pigment), 60 parts by weight of barium sulfate (a white pigment) and 0.2 parts by weight of flaming soot (carbon black, a black pigment) [paragraph 30] which corresponds to 15 parts by weight of dry (solids content) binder resin and 44 parts by weight of inorganic pigment per 100 parts by weight of pigment concentrate. Twenty percent of the binder before dilution with water is methoxypropoxypropanol [paragraphs 25 and 27] which corresponds to 3 parts by weight of methoxypropoxypropanol solvent per 100 parts by weight of pigment concentrate. Examiner has also calculated the molecular weight of the (B) polyester from the hydroxyl number and assuming a functionality of 1 (which is reasonable considering the monocarboxylic acid terminators) and found that the molecular weight ranges to as low as 1122 g/mol. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990), *In re Geisler*, 116 F.3d 1465, 1469-71, 43 USPQ2d 1362, 1365-66 (Fed. Cir. 1997).

Staritzbichler does not disclose the specific component A of the claims.

However, Staritzbichler does disclose that the partial condensation product binder of A

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and B may also include formaldehyde condensates of melamine, urea, benzoguanamin, etc. [paragraph 16].

Tuemmler discloses water dilutable resins AB which are dilutable in water after neutralization and are the reaction products of A acid functional polymers and B water insoluble aldehyde or ketone resins obtainable by condensing aldehydes with urea [abstract]. The preferred embodiment of the polymer A comprises a copolymer formed from a monomer mixture comprising mass fractions of A1 from 10 to 33% of one or more monomers selected from the group consisting of an alpha,beta-unsaturated aliphatic carboxylic acid having 3 to 13 carbon atoms, and a monoalkyl ester of an alpha,beta-unsaturated aliphatic dicarboxylic acid having 1 to 20 carbon atoms in the alkyl radical, A2 from 67 to 90% of one or more olefinically unsaturated monomers which are free of acid groups, selected from the group consisting of esters of acrylic and methacrylic acid with aliphatic alcohols having 1 to 12 carbon atoms in the alkyl radical, styrene, vinyl toluene, acrylonitrile, methacrylonitrile, hydroxyalkyl (meth)acrylates having 2 to 20 carbon atoms in the alkyl radical, and dialkyl esters of alpha,beta-unsaturated aliphatic dicarboxylic acids having 1 to 20 carbon atoms in the alkyl radical, and A3 from 0 to 50% of one or more mono- or polyunsaturated fatty acids having 14 to 30 carbon atoms, or their esters, the sum of the mass fractions of A1, A2, and A3 in the monomer mixture being 100% [col 3 line 53 through col 4 line7]. The invention is especially suitable as paste resins for preparing low-solvent and solvent-free pigment pastes. They feature a high pigment binding capacity, are stable on storage, and undergo little or no change in viscosity in the course of their storage in the pigment

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pastes produced from them. The amount of pigment that can be incorporated into these resins ranges from about 30 g to about 750 g of pigment per 100 g of resin AB, more typical from about 40 to about 600 g of pigment, and usually from about 50 to about 500 g of pigment [col 6 lines 9-21]. Before addition of pigments, minor amounts, i. e. between 0.5 and 10 g, of additives are usually added to the resin AB. These additives include, *inter alia*, wetting agents [col 6 lines 21-24].

It would have been obvious to one having ordinary skill in the art the time the invention was made to have prepared a pigment concentrate comprising 40 to 70 weight percent inorganic pigment and 5 to 20 weight percent water dilutable condensation resin AB prepared by condensing a polycarboxylic acid polymer A from monomers A1, A2 and optionally A3 and hydrophobic polyester B comprising hydroxyl groups because Staritzbichler teaches that it is within the skill of the art to a pigment concentrate comprising about 44 weight percent inorganic pigment and about 15 weight percent water dilutable condensation resin AB prepared by condensing a polycarboxylic acid polymer A and hydrophobic polyester B comprising hydroxyl groups and Tuemmler teach that it is within the skill of the art to prepare a pigment concentrate from a condensation resin AB prepared by condensing a polycarboxylic acid polymer A from monomers A1, A2 and optionally A3 and hydrophobic polymer B comprising hydroxyl groups. One would have been motivated to use the preferred polycarboxylic polymer A from Tuemmler as the polycarboxylic acid polymer A of Staritzbichler because Tuemmler teaches that the polycarboxylic acid A features a high pigment binding capacity, is stable on storage, and undergoes little or no change in viscosity in the

course of storage in the pigment pastes produced therefrom. Absent any evidence to the contrary, there would have been a reasonable expectation of success using the polycarboxylic acid A of Tuemmler to prepare the pigment concentrate of Staritzbichler.

#### **(10) Response to Argument**

Appellants argue that Examiner has failed to provide motivation to combine which is an articulated reason with a rational underpinning. Appellants recite the motivation statement provided by Examiner:

“One would have been motivated to use the preferred polycarboxylic polymer A from Tuemmler as the polycarboxylic acid polymer A of Staritzbichler because Tuemmler teaches that the polycarboxylic acid A features a high pigment binding capacity, is stable on storage, and undergoes little or no change in viscosity in the course of storage in the pigment pastes produced therefrom.”

Appellants argue that this is not a stated motivation to combine. Appellants argue that Tuemmler does not teach that any advantage could be achieved by combining the polycarboxylic polymer A with the hydroxyl functional polyester of Staritzbichler but rather that Tuemmler teaches that the polycarboxylic polymer A provides water dilutable resins when combined with water insoluble aldehyde or ketone resins. Appellants argue that no such aldehyde or ketone resin is involved in the present invention or in the invention of Staritzbichler. This argument is not convincing. As Examiner cited in the rejection of record, Staritzbichler does contain a resin of formaldehyde condensate with melamine, urea, benzoguanamine, etc. [page 2 paragraph 2 of machine translation; page 3 lines 44-45 of German language patent



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document]. These read on the aldehyde-urea polymers B of Tuemmler [col 2 line 8].

Appellants have not addressed this aspect of the rejection.

Appellants also argue that the polyester B of Staritzbichler also contains urethane groups which are necessary components that ensure the disclosed intrinsic viscosity desired by Staritzbichler. Appellants argue that these urethane groups are excluded by the claims from the claimed polyester B. This argument is not convincing. There is nothing in the claimed language that excludes urethane groups from the polyester B of the claims. A polyester urethane still reads on a polyester, as evidenced by Staritzbichler's use of the term "polyester" to describe component B. The disclosed polymer B of Staritzbichler is based on a polyester and contains all the claimed components in the claimed amounts and exhibits the claimed hydroxyl number.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Michael M. Dollinger/

/RANDY GULAKOWSKI/

Supervisory Patent Examiner, Art Unit 1766

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Conferees:

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